

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number  
**WO 2004/110329 A1**

(51) International Patent Classification<sup>7</sup>: **A61G 5/02**,  
B62K 5/04, 21/00

(21) International Application Number:  
PCT/US2004/018414

(22) International Filing Date: 9 June 2004 (09.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10/459,153 11 June 2003 (11.06.2003) US  
60/477,510 11 June 2003 (11.06.2003) US  
60/502,405 11 September 2003 (11.09.2003) US

(71) Applicant (for all designated States except US): **KUD-HARA, INC.** [US/US]; 3161 Baldwin Road, Hinesburg, VT 05461 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LINDSAY, Stuart, M.** [CA/US]; 6 Linden Terrace, Burlington, VT 05401 (US). **MCMATH, David, Winters** [US/US]; 3161-3163

Baldwin Road, Hinesburg, VT 05461 (US). **COWLES, Robert** [US/US]; 29 Harbor Road, Shelburne, VT 05482 (US). **MATHEWSON, Timothy, C.** [US/US]; 123 Mountain Meadows Road, Ferrisburgh, VT 05456 (US). **WALKER, Mark, P.** [US/US]; 2 Garbaree Lane, Jericho, VT 05465 (US).

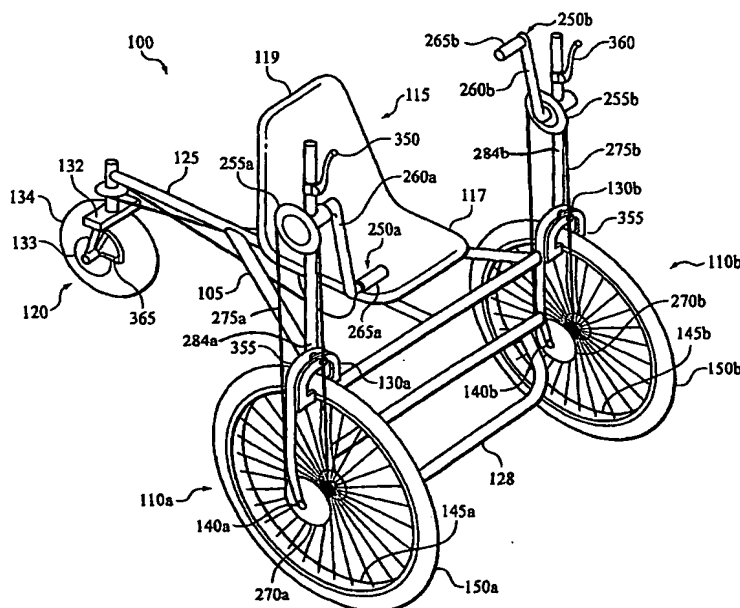
(74) Agent: **SCHULER, David, L.**; Fish & Richardson P.C., 225 Franklin Street, Boston, MA 02110-2804 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: **MOBILITY ASSISTANCE VEHICLE**



(57) Abstract: A human-powered vehicle (100, 560) includes a structural frame (105) supported on multiple road wheels including driven wheels (110) each rotatable about an axle for propulsion, a seat (115) secured to the frame (105, 554) for supporting an operator, a hand crank (250) disposed above the driven wheel (110) and rotatable by hand by an operator seated in the seat (115), and a steerable rear wheel (120) operably linked to the seat (115) such that pivoting of the seat (115) about a seat pivot axis causes pivoting of the rear wheel (120) to steer the vehicle (100, 560).

WO 2004/110329 A1



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*